



SEQUENCE LISTING

<110> Luche, Ralf M.
Wei, Bo

<120> DSP-3 DUAL-SPECIFICITY PHOSPHATASE

<130> 200125.408

<140> US

<141> 2000-04-06

<160> 18

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 926

<212> DNA

<213> Homo sapien

<400> 1

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acatcggcaa ctccaagat gccagagacg cggacaatt gagcaagaac aagggtgacac 180
atattctgtc tgtccacgat agtggcagcc ctatgttggg gggagttaaa tacctgtgca 240
tcccagcagc ggattcacc tctcaaaacc tgacaagaca ttccaagaa agtattaaat 300
tcattcacga gtgccggctc cgcggtgaga gctgccttgt acactgctg gccgggtct 360
ccaggagcgt gacactgggtg atcgcataca tcatgaccgt cactgacttt ggctgggagg 420
atgccctgca caccgtgcgt gctgggagat cctgtgccaa cccaacgtg ggcttccaga 480
gacagctcca ggagtttgag aagcatgagg tccatcagta tcggcagtg ctgaaggag 540
aatatggaga gagcccttg caggatgcag aagaagccaa aaacattctg gccgtccag 600
gaattctgaa gttctgggcc ttctcagaa gactgtaatg tacctgaagt ttctgaaata 660
ttgcaaacc gcagagttta ggctgggtgct gccaaaaaga aaagcaacat agagtttaag 720
tatccagtag tgatttgtaa acttgttttt catttgaaagc tgaatatata cgtagtcag 780
tttatgttga gaactaagga tattctttag caagagaaaa tattttcccc ttatccccac 840
tgctgtggag gtttctgtac ctcgcttggg tgccctgtaag gatcccggga gccttgccgc 900
actgccttgt ggggtggcttg gcgctc 926

<210> 2

<211> 184

<212> PRT

<213> Homo sapien

<400> 2

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1 5 10 15
Phe Lys Asp Ala Arg Asp Ala Glu Gln Leu Ser Lys Asn Lys Val Thr
20 25 30
His Ile Leu Ser Val His Asp Ser Ala Arg Pro Met Leu Glu Gly Val
35 40 45
Lys Tyr Leu Cys Ile Pro Ala Asp Ser Pro Ser Gln Asn Leu Thr
50 55 60
Arg His Phe Lys Glu Ser Ile Lys Phe Ile His Glu Cys Arg Leu Arg

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65 70 75 80
 Gly Glu Ser Cys Leu Val His Cys Leu Ala Gly Val Ser Arg Ser Val
 85 90 95
 Thr Leu Val Ile Ala Tyr Ile Met Thr Val Thr Asp Phe Gly Trp Glu
 100 105 110
 Asp Ala Leu His Thr Val Arg Ala Gly Arg Ser Cys Ala Asn Pro Asn
 115 120 125
 Val Gly Phe Gln Arg Gln Leu Gln Glu Phe Glu Lys His Glu Val His
 130 135 140
 Gln Tyr Arg Gln Trp Leu Lys Glu Glu Tyr Gly Glu Ser Pro Leu Gln
 145 150 155 160
 Asp Ala Glu Glu Ala Lys Asn Ile Leu Ala Ala Pro Gly Ile Leu Lys
 165 170 175
 Phe Trp Ala Phe Leu Arg Arg Leu
 180

<210> 3
 <211> 10
 <212> PRT
 <213> Homo sapien

<400> 3
 Val His Cys Leu Ala Gly Val Ser Arg Ser
 1 5 10

<210> 4
 <211> 23
 <212> PRT
 <213> Homo sapien

<400> 4
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 Asn Ile Leu Ala Tyr Leu Met
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<210> 5
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Primer used to obtain full length cDNA encoding
 DSP-3

<400> 5
 gacctcatgc ttctcaaact cctg

24

<210> 6
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Primer used to obtain full length cDNA encoding
 DSP-3

D
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<400> 6
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<210> 7
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer used to obtain full length cDNA encoding
DSP-3

<400> 7
cagaatatgt gtcaccttgt tcttgc 26

<210> 8
<211> 26
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<213> Artificial Sequence

<220>
<223> Primer used to obtain full length cDNA encoding
DSP-3

<400> 8
gcaagaacaa ggtgacacat attctg 26

<210> 9
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer used to obtain full length cDNA encoding
DSP-3

<400> 9
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<210> 10
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<212> DNA
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<220>
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DSP-3

<400> 10
cagtcttctg agaaaggccc agaacttcag aattcct 37

<210> 11
<211> 170
<212> PRT
<213> Homo sapien

<400> 11

D1
Cont

Ser Asp Leu Asp Arg Asp Pro Asn Ser Ala Thr Asp Ser Asp Gly Ser
 1 5 10 15
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 Leu Tyr Leu Gly Cys Ala Lys Asp Ser Thr Asn Leu Asp Val Leu Glu
 35 40 45
 Glu Phe Gly Ile Lys Tyr Ile Leu Asn Val Thr Pro Asn Leu Pro Asn
 50 55 60
 Leu Phe Glu Asn Ala Gly Glu Phe Lys Tyr Lys Gln Ile Pro Ile Ser
 65 70 75 80
 Asp His Trp Ser Gln Asn Leu Ser Gln Phe Phe Pro Glu Ala Ile Ser
 85 90 95
 Phe Ile Asp Glu Ala Arg Gly Lys Asn Cys Gly Val Leu Val His Cys
 100 105 110
 Leu Ala Gly Ile Ser Arg Ser Val Thr Val Thr Val Ala Tyr Leu Met
 115 120 125
 Gln Lys Leu Asn Leu Ser Met Asn Asp Ala Tyr Asp Ile Val Lys Met
 130 135 140
 Lys Lys Ser Asn Ile Ser Pro Asn Phe Asn Phe Met Gly Gln Leu Leu
 145 150 155 160
 Asp Phe Glu Arg Thr Leu Gly Leu Ser Ser
 165 170

<210> 12
 <211> 168
 <212> PRT
 <213> Homo sapien

<400> 12
 Asp Arg Glu Leu Pro Ser Ser Ala Thr Glu Ser Asp Gly Ser Pro Val
 1 5 10 15
 Pro Ser Ser Gln Pro Ala Phe Pro Val Gln Ile Leu Pro Tyr Leu Tyr
 20 25 30
 Leu Gly Cys Ala Lys Asp Ser Thr Asn Leu Asp Val Leu Gly Lys Tyr
 35 40 45
 Gly Ile Lys Tyr Ile Leu Asn Val Thr Pro Asn Leu Pro Asn Ala Phe
 50 55 60
 Glu His Gly Gly Glu Phe Thr Tyr Lys Gln Ile Pro Ile Ser Asp His
 65 70 75 80
 Trp Ser Gln Asn Leu Ser Gln Phe Phe Pro Glu Ala Ile Ser Phe Ile
 85 90 95
 Asp Glu Ala Arg Ser Lys Lys Cys Gly Val Leu Val His Cys Leu Ala
 100 105 110
 Gly Ile Ser Arg Ser Val Thr Val Thr Val Ala Tyr Leu Met Gln Lys
 115 120 125
 Met Asn Leu Ser Leu Asn Asp Ala Tyr Asp Phe Val Lys Arg Lys Lys
 130 135 140
 Ser Asn Ile Ser Pro Asn Phe Asn Phe Met Gly Gln Leu Leu Asp Phe
 145 150 155 160
 Glu Arg Thr Leu Gly Leu Ser Ser
 165

<210> 13
 <211> 170
 <212> PRT
 <213> Homo sapien

D'
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<400> 13

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			20					25					30		
His	Leu	Tyr	Leu	Gly	Ser	Gln	Lys	Asp	Val	Leu	Asn	Lys	Asp	Leu	Met
		35					40					45			
Thr	Gln	Asn	Gly	Ile	Ser	Tyr	Val	Leu	Asn	Ala	Ser	Asn	Ser	Cys	Pro
	50					55				60					
Lys	Pro	Asp	Phe	Ile	Cys	Glu	Ser	Arg	Phe	Met	Arg	Val	Pro	Ile	Asn
65					70					75				80	
Asp	Asn	Tyr	Cys	Glu	Lys	Leu	Leu	Pro	Trp	Leu	Asp	Lys	Ser	Ile	Glu
			85						90					95	
Phe	Ile	Asp	Lys	Ala	Lys	Leu	Ser	Ser	Cys	Gln	Val	Ile	Val	His	Cys
			100					105					110		
Leu	Ala	Gly	Ile	Ser	Arg	Ser	Ala	Thr	Ile	Ala	Ile	Ala	Tyr	Ile	Met
		115					120					125			
Lys	Thr	Met	Gly	Met	Ser	Ser	Asp	Asp	Ala	Tyr	Arg	Phe	Val	Lys	Asp
	130					135					140				
Arg	Arg	Pro	Ser	Ile	Ser	Pro	Asn	Phe	Asn	Phe	Leu	Gly	Gln	Leu	Leu
145					150					155					160
Glu	Tyr	Glu	Arg	Thr	Leu	Lys	Leu	Leu	Ala						
				165					170						

<210> 14

<211> 168

<212> PRT

<213> Homo sapien

<400> 14

Pro	Ala	Gln	Ala	Leu	Pro	Pro	Ala	Gly	Ala	Glu	Asn	Ser	Asn	Ser	Asp
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Pro	Arg	Val	Pro	Ile	Tyr	Asp	Gln	Gly	Gly	Pro	Val	Glu	Ile	Leu	Pro
			20					25					30		
Tyr	Leu	Tyr	Leu	Gly	Ser	Cys	Asn	His	Ser	Ser	Asp	Leu	Gln	Gly	Leu
		35					40					45			
Gln	Ala	Cys	Gly	Ile	Thr	Ala	Val	Leu	Asn	Val	Ser	Ala	Ser	Cys	Pro
	50					55					60				
Asn	His	Phe	Glu	Gly	Leu	Phe	His	Tyr	Lys	Ser	Ile	Pro	Val	Glu	Asp
65					70					75				80	
Asn	Gln	Met	Val	Glu	Ile	Ser	Ala	Trp	Phe	Gln	Glu	Ala	Ile	Ser	Phe
			85					90					95		
Ile	Asp	Ser	Val	Lys	Asn	Ser	Gly	Gly	Arg	Val	Leu	Val	His	Cys	Gln
			100					105					110		
Ala	Gly	Ile	Ser	Arg	Ser	Ala	Thr	Ile	Cys	Leu	Ala	Tyr	Leu	Ile	Gln
		115					120					125			
Ser	His	Arg	Val	Arg	Leu	Asp	Glu	Ala	Phe	Asp	Phe	Val	Lys	Gln	Arg
	130					135				140					
Arg	Gly	Val	Ile	Ser	Pro	Asn	Phe	Ser	Phe	Met	Gly	Gln	Leu	Leu	Gln
145					150					155					160
Leu	Glu	Thr	Gln	Val	Leu	Cys	His								
				165											

<210> 15

<211> 169

<212> PRT

<213> Homo sapien

D'
Cont

<400> 15

Pro	Leu	Ser	Thr	Ser	Val	Pro	Asp	Ser	Ala	Glu	Ser	Gly	Cys	Ser	Ser
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Cys	Ser	Thr	Pro	Leu	Tyr	Asp	Gln	Gly	Gly	Pro	Val	Glu	Ile	Leu	Pro
			20					25					30		
Phe	Leu	Tyr	Leu	Gly	Ser	Ala	Tyr	His	Ala	Ser	Arg	Lys	Asp	Met	Leu
		35					40					45			
Asp	Ala	Leu	Gly	Ile	Thr	Ala	Leu	Ile	Asn	Val	Ser	Ala	Asn	Cys	Pro
	50					55				60					
Asn	His	Phe	Glu	Gly	His	Tyr	Gln	Tyr	Lys	Ser	Ile	Pro	Val	Glu	Asp
65					70					75				80	
Asn	His	Lys	Ala	Asp	Ile	Ser	Ser	Trp	Phe	Asn	Glu	Ala	Ile	Asp	Phe
				85					90					95	
Ile	Asp	Ser	Ile	Lys	Asn	Ala	Gly	Gly	Arg	Val	Phe	Val	His	Cys	Gln
			100					105					110		
Ala	Gly	Ile	Ser	Arg	Ser	Ala	Thr	Ile	Cys	Leu	Ala	Tyr	Leu	Met	Arg
			115				120					125			
Thr	Asn	Arg	Val	Lys	Leu	Asp	Glu	Ala	Phe	Glu	Phe	Val	Lys	Gln	Arg
	130					135					140				
Arg	Ser	Ile	Ile	Ser	Pro	Asn	Phe	Ser	Phe	Met	Gly	Gln	Leu	Leu	Gln
145					150					155					160
Phe	Glu	Ser	Gln	Val	Leu	Ala	Pro	His							
				165											

<210> 16

<211> 169

<212> PRT

<213> Homo sapien

<400> 16

Pro	Val	Pro	Pro	Ser	Ala	Thr	Glu	Pro	Leu	Asp	Leu	Gly	Cys	Ser	Ser
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Cys	Gly	Thr	Pro	Leu	His	Asp	Gln	Gly	Gly	Pro	Val	Glu	Ile	Leu	Pro
			20					25					30		
Phe	Leu	Tyr	Leu	Gly	Ser	Ala	Tyr	His	Ala	Ala	Arg	Arg	Asp	Met	Leu
		35					40					45			
Asp	Ala	Leu	Gly	Ile	Thr	Ala	Leu	Leu	Asn	Val	Ser	Ser	Asp	Cys	Pro
	50					55				60					
Asn	His	Phe	Glu	Gly	His	Tyr	Gln	Tyr	Lys	Cys	Ile	Pro	Val	Glu	Asp
65					70					75				80	
Asn	His	Lys	Ala	Asp	Ile	Ser	Ser	Trp	Phe	Met	Glu	Ala	Ile	Glu	Tyr
				85					90					95	
Ile	Asp	Ala	Val	Lys	Asp	Cys	Arg	Gly	Arg	Val	Leu	Val	His	Cys	Gln
			100					105					110		
Ala	Gly	Ile	Ser	Arg	Ser	Ala	Thr	Ile	Cys	Leu	Ala	Tyr	Leu	Met	Met
			115				120					125			
Lys	Lys	Arg	Val	Arg	Leu	Glu	Ala	Phe	Glu	Phe	Val	Lys	Gln	Arg	
	130					135				140					
Arg	Ser	Ile	Ile	Ser	Pro	Asn	Phe	Ser	Phe	Met	Gly	Gln	Leu	Leu	Gln
145					150					155					160
Phe	Glu	Ser	Gln	Val	Leu	Ala	Thr	Ser							
				165											

<210> 17

<211> 171

<212> PRT

D
Cont

<213> Homo sapien

<400> 17

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Ser	Tyr	Arg	Pro	Ala	Tyr	Asp	Gln	Gly	Gly	Pro	Val	Glu	Ile	Leu	Pro
			20					25					30		
Phe	Leu	Tyr	Leu	Gly	Ser	Ala	Tyr	His	Ala	Ser	Lys	Cys	Glu	Phe	Leu
		35					40					45			
Ala	Asn	Leu	His	Ile	Thr	Ala	Leu	Leu	Asn	Val	Ser	Arg	Arg	Thr	Ser
	50					55				60					
Glu	Ala	Cys	Met	Thr	His	Leu	His	Tyr	Lys	Trp	Ile	Pro	Val	Glu	Asp
65					70					75					80
Ser	His	Thr	Ala	Asp	Ile	Ser	Ser	His	Phe	Gln	Glu	Ala	Ile	Asp	Phe
				85					90					95	
Ile	Asp	Cys	Val	Arg	Glu	Lys	Gly	Gly	Lys	Val	Leu	Val	His	Cys	Glu
			100					105					110		
Ala	Gly	Ile	Ser	Arg	Ser	Pro	Thr	Ile	Cys	Met	Ala	Tyr	Leu	Met	Lys
		115					120					125			
Thr	Lys	Gln	Phe	Arg	Leu	Lys	Glu	Ala	Phe	Asp	Tyr	Ile	Lys	Gln	Arg
	130					135					140				
Arg	Ser	Met	Val	Ser	Pro	Asn	Phe	Gly	Phe	Met	Gly	Gln	Leu	Leu	Gln
145					150					155					160
Tyr	Glu	Ser	Glu	Ile	Leu	Pro	Ser	Thr	Pro	Asn					
				165					170						

<210> 18

<211> 180

<212> PRT

<213> Homo sapien

<400> 18

Ser	Gly	Ser	Phe	Glu	Leu	Ser	Val	Gln	Asp	Leu	Asn	Asp	Leu	Leu	Ser
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Asp	Gly	Ser	Gly	Cys	Tyr	Ser	Leu	Pro	Ser	Gln	Pro	Cys	Asn	Glu	Val
			20					25					30		
Thr	Pro	Arg	Ile	Tyr	Val	Gly	Asn	Ala	Ser	Val	Ala	Gln	Asp	Ile	Pro
		35				40						45			
Lys	Leu	Gln	Lys	Leu	Gly	Ile	Thr	His	Val	Leu	Asn	Ala	Ala	Glu	Gly
	50					55					60				
Arg	Ser	Phe	Met	His	Val	Asn	Thr	Asn	Ala	Asn	Phe	Tyr	Lys	Asp	Ser
65				70						75					80
Gly	Ile	Thr	Tyr	Leu	Gly	Ile	Lys	Ala	Asn	Asp	Thr	Gln	Glu	Phe	Asn
				85					90					95	
Leu	Ser	Ala	Tyr	Phe	Glu	Arg	Ala	Ala	Asp	Phe	Ile	Asp	Gln	Ala	Leu
		100						105					110		
Ala	Gln	Lys	Asn	Gly	Arg	Val	Leu	Val	His	Cys	Arg	Glu	Gly	Tyr	Ser
		115						120				125			
Arg	Ser	Pro	Thr	Leu	Val	Ile	Ala	Tyr	Leu	Met	Met	Arg	Gln	Lys	Met
	130					135					140				
Asp	Val	Lys	Ser	Ala	Leu	Ser	Ile	Val	Arg	Gln	Asn	Arg	Glu	Ile	Gly
145					150					155					160
Pro	Asn	Asp	Gly	Phe	Leu	Ala	Gln	Leu	Cys	Gln	Leu	Asn	Asp	Arg	Leu
				165					170					175	
Ala	Lys	Glu	Gly												
			180												

D
Cont